Claims

1. An alkali-free aluminoborosilicate glass comprising by weight % based on oxide,

SiO_2	> 58 - 65,
B_2O_3	> 6 - 11.5,
Al_2O_3	> 14 - 20,
MgO	> 3 - 6,
CaO	> 4.5 - 10,
SrO	0 - 1.5,
BaO	> 1.5 - 6,
with SrO + BaO	> 3, and
ZnO	0 - < 2.

2. An alkali-free aluminoborosilicate glass comprising by weight % based on oxide,

SiO_2	> 58 - 65,
B_2O_3	> 6 - 11.5,
Al_2O_3	> 14 - 20,
MgO	> 3 - 6,
CaO	> 4.5 - 10,
SrO	0 - < 4,
BaO	> 2.5 - 6,
with SrO + BaO	> 3, and
ZnO	0 - 0.5.

3. An aluminoborosilicate glass according to Claim 1, comprising at most 5% by weight MgO based on oxide.

4. An aluminoborosilicate glass according to Claim 1, comprising at least 60% by weight SiO_2 based on oxide.

5. An aluminoborosilicate glass according to Claim 1, comprising more than 11% by weight MgO, CaO, SrO and BaO together based on oxide.

6. An aluminoborosilicate glass according to Claim 1, further comprising by weight % based on oxide,

ZrO_2	0 – 2,
TiO_2	0 – 2,
With $ZrO_2 + TiO_2$	0 – 2,
As_2O_3	0 – 1.5,
Sb_2O_3	0 – 1.5,
SnO_2	0 – 1.5,
CeO_2	0 – 1.5,
Cl^-	0 – 1.5,
F^-	0 – 1.5,
SO_4^{2-}	0 – 1.5, and
Wherein $As_2O_3 + Sb_2O_3 + SnO_2 + CeO_2 + Cl^- + F^- + SO_4^{2-}$	0 – 1.5.

7. An aluminoborosilicate glass according to Claim 1, which is free or essentially free of arsenic oxide and antimony oxide.

8. An aluminoborosilicate glass according to claim 1, having a ratio of MgO/CaO by weight of less than 1.

9. An aluminoborosilicate glass according to claim 1, having a ratio of MgO/CaO by weight of less than 0.7.

10. An aluminoborosilicate glass according to claim 1, comprising at least 5% by weight CaO based on oxide.

11. An aluminoborosilicate glass according to claim 1, comprising > 7 to ≤ 11% by weight B_2O_3 based on oxide.

12. An aluminoborosilicate glass according to

claim 1, comprising > 2.5% to ≤ 5% by weight BaO based on oxide.

13. An aluminoborosilicate glass according to claim 1, comprising more than 3% by weight SrO and BaO together based on oxide.

14. An aluminoborosilicate glass according to claim 1, comprising up to 0.5% by weight ZnO based on oxide.

15. An aluminoborosilicate glass according to claim 1, comprising up to 1.5% by weight ZnO based on oxide.

16. An aluminoborosilicate glass according to claim 1, further comprising idependently of one another at most 0.5% ZrO_2 and TiO_2 each by weight based on oxide.

17. An aluminoborosilicate glass according to Claim 2, comprising at most 5% by weight MgO based on oxide.

18. An aluminoborosilicate glass according to Claim 2, comprising at least 60% by weight SiO_2 based on oxide.

19. An aluminoborosilicate glass according to Claim 2, comprising more than 11% by weight based on oxide MgO, CaO, SrO and BaO is greater together.

20. An aluminoborosilicate glass according to Claim 2, further comprising by weight % based on oxide,

ZrO_2	0 – 2,
TiO_2	0 – 2,
with $ZrO_2 + TiO_2$	0 – 2,

As_2O_3	0 - 1.5,
Sb_2O_3	0 - 1.5,
SnO_2	0 - 1.5,
CeO_2	0 - 1.5,
Cl^-	0 - 1.5,
F^-	0 - 1.5,
SO_4^{2-}	0 - 1.5, and
Wherein $As_2O_3 + Sb_2O_3 + SnO_2 + CeO_2 + Cl^- + F^- + SO_4^{2-}$	0 - 1.5.

21. An aluminoborosilicate glass according to Claim 2, which is free or essentially free of arsenic oxide and antimony oxide.

22. An aluminoborosilicate glass according to claim 2, having a ratio of MgO/CaO by weight of less than 1.

23. An aluminoborosilicate glass according to claim 2, having a ratio of MgO/CaO by weight of less than 0.7.

24. An aluminoborosilicate glass according to claim 2, comprising at least 5% by weight CaO based on oxide.

25. An aluminoborosilicate glass according to claim 2, comprising > 7 to ≤ 11% by weight B_2O_3 based on oxide.

26. An aluminoborosilicate glass according to claim 2, comprising > 2.5% to ≤ 5% by weight BaO based on oxide.

27. An aluminoborosilicate glass according to claim 2, comprising more than 3% by weight SrO and BaO together based on oxide.

28. An aluminoborosilicate glass according to claim 2, comprising up to 0.5% by weight ZnO based on oxide.

29. An aluminoborosilicate glass according to claim 2, comprising up to 1.5% by weight ZnO based on oxide.

30. An aluminoborosilicate glass according to claim 2, further comprising idependently of one another at most 0.5% ZrO_2 and TiO_2 each by weight based on oxide.

31. An aluminosilicate glass according to claim 2, comprising up to 3% by weight SrO based on oxide.

32. A substrate glass in thin-film photovoltaics or a display comprising an alkali-free aluminoborosilicate glass according to claim 1.

33. A TFT display or a thin-film solar cell comprising an alkali-free aluminoborosilicate glass according to claim 1.

34. A substrate glass in thin-film photovoltaics or a display comprising an alkali-free aluminoborosilicate glass according to claim 2.

35. A TFT display or a thin-film solar cell comprising an alkali-free aluminoborosilicate glass according to claim 2.

36. An alkali-free aluminoborosilicate glass comprising less than 1500 ppm alkali metal oxides and comprising by weight % based on oxide,

SiO_2 > 58 - 65,

B_2O_3	> 6 – 11.5,
Al_2O_3	> 14 – 20,
MgO	> 3 – 6,
CaO	> 4.5 – 10,
SrO	0 – 1.5,
BaO	> 1.5 – 6,
with SrO + BaO	> 3, and
ZnO	0 – < 2.

37. An alkali-free aluminoborosilicate glass comprising less than 1500 ppm alkali metal oxides and comprising by weight % based on oxide,

SiO_2	> 58 – 65,
B_2O_3	> 6 – 11.5,
Al_2O_3	> 14 – 20,
MgO	> 3 – 6,
CaO	> 4.5 – 10,
SrO	0 – < 4,
BaO	> 2.5 – 6,
with SrO + BaO	> 3, and
ZnO	0 – 0.5.

add a5

add B2